

EXHIBIT G

1
2 UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

3 -----X
4 KCG HOLDINGS, INC., and
KCG AMERICAS LLC,

5
6 Plaintiffs,

7 vs. 17-cv-03533 (AJN)

8 ROHIT KHANDEKAR,

9 Defendant.
10 -----X

11
12 DEPOSITION OF KCG HOLDINGS, INC.,
13 and KCG AMERICAS LLC

14 BY PHILIP CHUNG

15 New York, New York

16 Wednesday, October 4, 2017
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21
22
23

24 Reported by:

JOAN WARNOCK

25 JOB NO. 131280

1 P. Chung

2 declaration, other than what you've just
3 testified about?

4 A. I believe that's it.

5 Q. With regard to the predictors,
6 Mr. Chung, how did you conclude that
7 Mr. Khandekar accessed them?

8 A. In a part of a different
9 investigation being conducted by Roy Vaccaro,
10 we or he was investigating or looking at some
11 false positives or, you know, hits that had
12 come up on his searches, and he noticed some
13 passing files, predictors potentially, in
14 Mr. Khandekar's personal directories.

15 Q. Did he notice them in
16 Mr. Khandekar's personal directories or in
17 backups or copies of Mr. Khandekar's
18 directories?

19 A. It would have been copies.

20 Q. And where were those copies that
21 Mr. Vaccaro looked at?

22 A. They were part of a separate
23 investigation, and so they were evidence in a
24 separate investigation.

25 Q. And tell me how that discovery led

1 P. Chung

2 to KCG's conclusion that Mr. Khandekar had
3 accessed these predictors?

4 A. Once that was noticed, those files
5 were noticed in the copy, Mr. Vaccaro went
6 and looked in the actual -- in the original
7 place on our servers, and he found that those
8 files had been -- that they weren't there.
9 Then subsequently he went through historical
10 snapshots, and he found files from I believe
11 what is February 19th.

12 Q. Found them where?

13 A. In the snapshots.

14 Q. Snapshots of what?

15 A. Of the original -- of the original
16 user work space of Mr. Khandekar.

17 Q. Is the list of predictors and other
18 files on Chung Exhibit 5 the predictors that
19 Mr. Vaccaro identified as having been on the
20 personal directory of Mr. Khandekar in
21 February of 2017?

22 A. Yes.

23 Q. How is it that KCG concluded that
24 Mr. Khandekar had misused these predictors?

25 MR. DUGAN: Objection to the extent

1 P. Chung

2 MR. DUGAN: Again, counsel, please
3 refrain. They were legitimate
4 objections. Let's refrain. And if you
5 want to please read the question back
6 again so the witness can answer.

7 MR. LIPMAN: And I will add,
8 however, that talking objections are not
9 appropriate in this district.

10 Q. Go ahead, Mr. Chung.

11 MR. DUGAN: It's not a talking
12 objection. I disagree with counsel.
13 That is not a talking objection. We've
14 both made out notes for the record.
15 Let's actually get on with the
16 deposition.

17 Can you read the question back,
18 please.

19 (The following record was read:)

20 "QUESTION: I'm not quite sure
21 you've answered my question, which is,
22 as you sit here today, leaving aside
23 what might happen in the future, is KCG
24 aware of any way in which Mr. Khandekar
25 misused the predictors or the contents

1 P. Chung

2 thereof other than by accessing the
3 predictors?"

4 A. At this point what we know is that
5 he improperly accessed the predictors.

6 Q. Does KCG know anything else other
7 than that with regard to Mr. Khandekar's
8 alleged improper use of these predictors?

9 MR. DUGAN: Objection to the extent
10 it calls for a legal conclusion and
11 form.

12 A. To this point we don't have any
13 evidence of -- we don't have any further
14 evidence that would say more than just
15 improperly accessing them.

16 Q. During the period 2012 through
17 March of 2017, did KCG take any measures to
18 protect its trade secrets and confidential
19 information?

20 A. Yes.

21 Q. What steps did KCG take to protect
22 its trade secret and confidential
23 information?

24 A. We encrypt files. We encrypt,
25 meaning the predictors.

1 P. Chung

2 Q. Okay.

3 A. We have access control around the
4 source code in general.

5 Q. What do you mean by that?

6 A. Meaning you need to have a password
7 and you need to have permissions to look at
8 certain projects.

9 Q. Does projects include predictors?

10 A. Yes. They -- predictors would be
11 part of that, yeah.

12 Q. Okay. So that's what you meant by
13 access control around source code?

14 A. Yes.

15 Q. What else? What other steps has
16 KCG taken?

17 A. We've had training around
18 confidentiality, IP.

19 Q. Training that Mr. Khandekar had?

20 A. I believe so.

21 Q. And training that other quants at
22 KCG had?

23 A. Certainly -- certainly if they had
24 started in 2012, yes.

25 Q. What else? What other steps did

1 P. Chung

2 KCG take during that period to protect its
3 trade secret and confidential information?

4 A. People also protect different areas
5 of storage, their files to keep sensitive
6 material there, certainly like research
7 material.

8 Q. You're talking about on the
9 electronic --

10 A. Yeah.

11 Q. -- computer system?

12 A. Yes.

13 Q. Anything else?

14 A. We also -- there's definitely
15 training from compliance in order to keep
16 different parts of the businesses separate,
17 meaning customer, client, you know, to
18 protect client information.

19 Q. With regard to the predictors you
20 may have partially answered this already, but
21 did KCG use access restrictions and
22 permissions with regard to the files?

23 A. Yes.

24 Q. And -- sorry. Go ahead.

25 A. In addition to encryption.

1 P. Chung

2 Q. Right. And did KCG's training of
3 quants include issuing to quants
4 documentation with regard to encrypting files
5 and creating password or other kinds of
6 permissions for those documents?

7 A. There are -- yes, there are various
8 wiki pages, loop pages.

9 Q. Wiki pages and loop pages; is that
10 right?

11 A. Yes. For the record, ^{the} loop is the
12 name we use for Confluence, for our
13 Confluence ^{instances} incidents. I don't know if that
14 actually helps.

15 Q. Would you describe KCG's use of
16 encryption and access permissions with regard
17 to predictor files to be important to KCG's
18 efforts to protect its trade secret
19 information?

20 A. Yes.

21 Q. I think you testified earlier that
22 you're aware that Mr. Khandekar gave notice
23 in mid-March 2017; right?

24 A. Yes.

25 Q. Do you know when Mr. Khandekar's

1 P. Chung

2 your attention, this email chain?

3 A. I don't recall. I just know that I
4 know the information from it.

5 Q. The first email in the chain is
6 from Mr. Khandekar to Mr. Liu. Do you see
7 it?

8 A. Yes.

9 Q. And in Mr. Khandekar's email to
10 Steve Liu on March 15, he says, "I found only
11 two emails that have information related to
12 my work here, and I have attached them, I
13 have attached those emails here."

14 Have you confirmed that that's
15 accurate?

16 A. Which part?

17 Q. That Mr. Khandekar found only two
18 emails related to his work here?

19 A. I've seen the two, I've seen the
20 two emails as evidence.

21 Q. Have you confirmed that those two
22 emails are the only two emails that
23 Mr. Khandekar sent related to his work at
24 KCG?

25 A. I have personally not confirmed.

1 P. Chung

2 And, again, I don't want to speculate about
3 something I don't know throughout the email
4 investigation. I'm sure we can find out if
5 we have to.

6 Q. Mr. Khandekar then writes, "All
7 other emails I had sent to outside domains
8 contain only personal information and do not
9 contain any KCG confidential information."

10 Has KCG confirmed the accuracy of
11 that statement?

12 A. Again, I can't -- I don't want to
13 speculate.

14 Q. You don't know?

15 A. I don't know personally.

16 Q. Would you agree that quants at KCG
17 develop confidential information?

18 A. Yes.

19 Q. Would you agree that quants at KCG
20 learn that confidential information that they
21 develop?

22 A. There is some learning. There is
23 also some research and producing.

24 Q. And there's also forgetting; right?

25 MR. DUGAN: Objection. Foundation.

1 P. Chung

2 A. I can't -- yeah, I can't get into
3 the mind of a quant.

4 Q. Well, would you be willing to agree
5 that the confidential information that a
6 quant learns can be forgotten over time?

7 MR. DUGAN: Objection to form and
8 foundation.

9 A. It depends on the individual.

10 Q. If and when a quant were to leave
11 KCG, would it be fair to say that that quant
12 was necessarily going to leave KCG with
13 confidential information in his or her head?

14 MR. DUGAN: Objection to form,
15 foundation, and outside the scope of the
16 30(b)(6). Harry, if you could just
17 point to the 30(b)(6), we'll go through
18 the same process, which topic this
19 question --

20 MR. LIPMAN: I want the witness to
21 answer the question.

22 MR. DUGAN: Okay. Just for the
23 record, counsel is refusing to answer
24 which topic this question goes to the in
25 the 30(b)(6) notice. For the record, it

1 P. Chung

2 MR. LIPMAN: Okay, Bill?

3 MR. DUGAN: Yeah.

4 Q. Prior to April 2017, was it KCG's
5 policy to require quants to restrict their
6 directories?

7 A. Yes.

8 Q. And where is that policy stated?

9 A. They certainly are -- there are
10 various places on loop pages, on wiki pages,
11 and certainly it would have been part of
12 training for new quants.

13 Q. Can you tell me with regard to a
14 file that a quant creates in UNIX every way
15 in which that file can be protected from
16 someone else looking at it on the system?

17 A. UNIX permissions, encrypting, UNIX
18 permissions on the directory it is in.

19 Q. Anything else?

20 A. No access to the storage at all for
21 that particular user.

22 Q. Anything else?

23 A. You could obfuscate it, trying to
24 make it hard to find.

25 Q. How would one do that?

1 P. Chung

2 Is there any policy specifically
3 with regard to writing scripts that you're
4 aware of?

5 MR. DUGAN: Objection. Asked and
6 answered.

7 Q. Prohibiting the use of scripts?

8 A. Not a specific one for scripts.

9 Q. Would it be fair to characterize
10 the use of a script under certain
11 circumstances to be a way for a user to
12 automate a series of what otherwise would
13 have to be manual steps?

14 MR. DUGAN: Objection to form and
15 foundation.

16 A. Yes. That is what a script could
17 certainly be used for.

18 Q. And if those manual steps didn't
19 violate any rule or policy at KCG, then the
20 use of a script to run those manual steps
21 similarly wouldn't violate any rule or policy
22 at KCG.

23 MR. DUGAN: Objection to form.

24 Q. Agreed?

25 MR. DUGAN: Same objection.

1 P. Chung

2 A. If the only thing that the script
3 did were the exact commands that you're
4 referring to, sure, agree.

5 Q. Did KCG ever have any policy that
6 prohibited a system user from listing the
7 contents of the directory to which he or she
8 had access?

9 A. Our policies state that we -- that
10 if you are not supposed to have access to a
11 directory, you're not supposed to access it
12 regardless of whether you have UNIX
13 permissions.

14 Q. That's a written policy or just a
15 convention?

16 A. It's an interpretation of the
17 policies that we have. I mean we have
18 confidential information, and, you know, only
19 certain people have access to that. It's
20 immaterial whether you can physically access
21 it.

22 Q. And where is that policy written
23 that you shouldn't access directories that
24 you have access permissions to access?

25 MR. DUGAN: Object to the form.

1 P. Chung

2 Q. And in order to gain access to
3 KCG's computer system to run these scripts
4 and access the [REDACTED] predictor files,
5 Mr. Khandekar had to use his KCG password to
6 get onto the system; right?

7 A. Correct.

8 Q. Let's take a look at Exhibit 13.
9 Well, it won't be marked as 13. It's my 13?

10 MR. LIPMAN: Let's mark this as 8,
11 please.

12 (Defendant's Chung Exhibit 8,
13 Knight Capital Group, Inc., Employee
14 Handbook, Bates stamped KCG 010691
15 through 010782, marked for
16 identification, as of this date.)

17 Q. And I will represent to you that up
18 until about 10:30 or so last night, this was
19 the only employee handbook that we had been
20 produced in this case. We're copying the
21 other one right now. But do you recognize
22 this document, Mr. Chung? And you could
23 actually sit here and read the entire
24 document if you wanted to, but --

25 MR. DUGAN: He's not going to read

1 P. Chung

2 document?

3 A. If you can access it. You have to
4 ask for explicit access to various projects
5 and directories.

6 Q. Does KCG believe that Mr. Khandekar
7 used any kind of decrypting devices or code
8 breaking devices to access or view any of the
9 predictors at issue?

10 A. Not to my knowledge.

11 Q. Were any of the files that
12 Mr. Khandekar accessed, those files being set
13 forth on Chung Exhibit 5, encrypted?

14 A. To the best of my knowledge, no.

15 Q. Were any of them password protected
16 or otherwise restricted from his accessing
17 and viewing them?

18 A. From a technical standpoint --

19 Q. From a UNIX permission standpoint.

20 A. Yeah, UNIX -- technical UNIX
21 standpoint, by definition, because he was
22 able to copy them, he had UNIX permission for
23 them.

24 Q. The files that Mr. Khandekar
25 accessed all had PGP permissions that allowed

1 P. Chung

2 know now of his activities, we believe that
3 he -- that his intent was to use those
4 simulation results for his own personal
5 benefit.

6 Q. What evidence do you have of that?

7 A. We know that he emailed those
8 results to himself.

9 Q. Anything other than that?

10 A. And we know that -- and after the
11 fact we discovered that he was
12 inappropriately accessing files that he
13 should not have, and we also know that in the
14 context of -- we know that he during that
15 time period was applying for employment at
16 our major competitor, Two Sigma.

17 Q. Anything else?

18 A. And we also discovered that he
19 misrepresented himself on his resume to
20 Two Sigma where he claimed he had worked on
21 alphas, predictors based on [REDACTED]
22 [REDACTED], which we know to be not true.

23 Q. How does the fact that, in your
24 words, he misrepresented himself on his
25 resume support the inference that he used the

1 P. Chung

2 two emails for personal purposes?

3 A. Again, given the context of knowing
4 what Mr. Khandekar had done after the
5 investigation, that led us to believe that.

6 Q. What evidence does KCG have that
7 Mr. Khandekar accessed the predictors at
8 issue for his personal purposes contrary to
9 KCG's interests?

10 A. Applying for a job that was a step
11 up in his current role at our major
12 competitor and misrepresenting the extent of
13 his experience leads us to believe -- leads
14 us to believe that he was doing inappropriate
15 things with our intellectual property.

16 Q. Can you be more specific as to what
17 evidence KCG has that Mr. Khandekar was using
18 the predictors that he accessed that are at
19 issue for his personal purposes contrary to
20 KCG's interests?

21 A. He got a job offer by
22 misrepresenting himself saying that he knew
23 -- he had knowledge about a certain type of
24 predictor, which he did not. It's pretty
25 plain. That's personal benefit.

1 P. Chung

2 Q. What predictor did Mr. Khandekar
3 claim to have knowledge of?

4 A. He claimed to have knowledge of
5 [REDACTED].

6 Q. And how does Mr. Khandekar's
7 reference to [REDACTED] in his
8 resume relate to his improper access of
9 predictors at issue in this case, in KCG's
10 view?

11 A. Predictors that he was authorized
12 to work on at KCG were not [REDACTED]
13 [REDACTED] predictors. The only person
14 doing -- at the time doing [REDACTED]
15 [REDACTED] type predictors was [REDACTED],
16 which Mr. Khandekar improperly accessed
17 predictors written by and owned by [REDACTED].

18 Q. Looking at KCG-5, which predictors
19 are you specifically referring to? Which
20 predictor or predictors are you specifically
21 referring to? If you can specify the KCG
22 page and the predictor name.

23 A. To the best of my knowledge, most
24 of the files, majority of the files that
25 [REDACTED] was the additional PGP recipient

1 P. Chung

2 list on. So on the exhibit that will be
3 KCG 010635, that should be the last three on
4 Page 2 and about half the page of Page 3.

5 Q. So am I correct to assume that what
6 you're saying is that Mr. Khandekar accessed
7 certain predictors that [REDACTED] was
8 working on in order to or as part of a plan
9 to misrepresent himself on his resume to
10 Two Sigma?

11 A. That's what it seems, yes.

12 Q. Okay.

13 A. Certainly to enhance his -- enhance
14 his resume and enhance his prospects for
15 whatever compensation that he could have
16 gotten.

17 Q. And how did that harm or injure KCG
18 if he did do that?

19 A. If those types of predictors had
20 gotten into production at Two Sigma, that
21 would directly affect the profitability of
22 KCG.

23 Q. I'm not asking that. I'm asking
24 how did it harm KCG, not how it could
25 theoretically harm KCG, but how, if at all --

1 P. Chung
2 about the confidentiality of client
3 information, for instance.

4 MR. LIPMAN: Let me hand you what
5 will be marked as Exhibit 12.

6 (Defendant's Chung Exhibit 12,
7 Document titled Policy Title: Access
8 Control Policy, Bates stamped KCG 000270
9 through 275, marked for identification,
10 as of this date.)

11 Q. Before you start looking at the
12 document, though, let me ask you a question.
13 Does KCG believe that it's fundamental to
14 information security for users to determine
15 who is entitled to access their information?

16 MR. DUGAN: Objection to form.

17 A. It's certainly part of your job.

18 Q. As a quant?

19 A. Not just a quant.

20 Q. But including quants?

21 A. Yes.

22 Q. Are file access permissions to be
23 established under KCG policy by the owners of
24 the information?

25 A. The owner of the file.

1 P. Chung

2 implementation of controls and continuous
3 oversight to restrict access?

4 A. Yes.

5 Q. And would you agree that with
6 regard to both statements, that quants were
7 expected to read and understand and follow
8 those policies?

9 A. Yes.

10 Q. So turning to 3.2.3 under
11 "Authorization," (a) states, "The permissions
12 to read, write, modify, update, or delete
13 information from files or databases should be
14 established by the owners of the
15 information." Right?

16 A. Um-hmm. Yes.

17 Q. This says that the owner of a file
18 in question is required to set appropriate
19 permissions; correct?

20 A. Well, 3.2.3(a) says the permissions
21 should be established by the owners.

22 Q. Okay. Is there a difference
23 between established and set --

24 A. Yes.

25 Q. -- in your mind?

1 P. Chung

2 know, act in that way.

3 Q. Are you aware of any system called
4 the reminder system or the like?

5 A. Reminder?

6 Q. A system that Mr. Liu, actually,
7 Steve Liu testified about which was in place
8 at KCG, according to Mr. Liu, which searched
9 for unprotected confidential information on
10 KCG's systems and somehow notified the owner
11 of that information to protect it. Does that
12 ring any bells?

13 A. Yes.

14 Q. What's that? What's that called?

15 A. It didn't have a name.

16 Q. When was it implemented?

17 A. The best of my knowledge, my
18 previous manager asked at the time the head
19 of infrastructure for our group to write a
20 script to accomplish what you just described.

21 Q. Who was your previous manager?

22 A. Pang Chau.

23 Q. P-a-n-g, C-h-o-u?

24 A. A-u.

25 Q. When was that?

1 P. Chung

2 A. I'm not sure exactly. It had to be
3 before February 2011.

4 Q. Why is that?

5 A. That is when Pang Chau left the
6 firm.

7 Q. Where did Pang Chau go?

8 A. Eventually he went to Citadel, a
9 competitor.

10 Q. Is that where he is now?

11 A. No.

12 Q. Do you know where he is now?

13 A. I do not.

14 Q. Do you have his contact
15 information?

16 A. I have older contact information.
17 We haven't been in touch for a while now.

18 Q. So sometime before February 2011
19 Pang Chau asked someone in the infrastructure
20 department to create a script to implement
21 this reminder system?

22 A. Yes.

23 Q. Who was the person who carried out
24 Mr. Chau's instructions?

25 A. Jinsong.

1 P. Chung

2 Q. How do you spell that?

3 A. J-i-n-s-o-n-g, and then Wang,
4 W-a-n-g.

5 Q. Is that one person?

6 A. Yes.

7 Q. And did -- Mr. Wang?

8 A. Yeah.

9 Q. Okay. Did Mr. Wang create the
10 script that Mr. Chau asked him to create?

11 A. That is my understanding, yes.

12 Q. And was that reminder system put in
13 place?

14 A. That is my understanding, yes.

15 Q. What is your understanding based
16 on?

17 A. Discussions with Jinsong. At some
18 point I started to manage him also.

19 Q. Did you manage the reminder system?

20 A. No.

21 Q. Who was in charge of managing the
22 reminder system?

23 A. I mean ultimately that was at the
24 request of Pang.

25 Q. Was Pang monitoring the reminder

1 P. Chung

2 system?

3 A. Define monitoring.

4 Q. Well, who was overseeing how the
5 reminder system was working after it was put
6 in place?

7 A. Yeah. Ultimately Pang.

8 Q. Who else?

9 A. Well, Jinsong since he wrote the
10 code.

11 Q. And Jinsong, is he still at KCG?

12 A. No, he's not.

13 Q. Where is he?

14 A. I don't know.

15 Q. Was the reminder system effective?

16 MR. DUGAN: Objection to form.

17 Q. Well, let me ask it this way.

18 A. It helped.

19 Q. What did it help with?

20 A. It pointed out to people that had
21 accidentally left their sensitive files with
22 too loose of access permissions.

23 Q. With what?

24 A. Too loose of access permissions, or
25 too permissive of permissions.

1 P. Chung

2 Q. Is the reminder system still in
3 place today?

4 A. No.

5 Q. Why not?

6 A. When Jinsong left, it ran under his
7 account, and from the technology side, we
8 didn't notice for a while. And by the time
9 we noticed, we didn't have access to the
10 code.

11 Q. When did Jinsong Wang leave?

12 A. I have to confirm, but I believe
13 mid-2013.

14 Q. When did you find out that the
15 reminder system had stopped working?

16 A. I can't recall exactly.

17 Q. Well, how long was it after --

18 A. But certainly quite a while.

19 Q. How long was it after Mr. Wang
20 left, which was in mid-2013, did you realize
21 that the reminder system was no longer
22 working?

23 A. I think we didn't notice until --
24 or it didn't come up probably until like
25 three years later.

1 P. Chung

2 Q. So sometime in 2016?

3 A. Yeah. Three or four years later.

4 I don't recall exactly when.

5 Q. Well, was it in the past six
6 months?

7 A. Past year.

8 Q. Was there any documentation --

9 A. No.

10 Q. -- describing the plan or the
11 permission?

12 A. No, there wasn't.

13 Q. I'm sorry. The reminder system?

14 A. There was not.

15 Q. Were there any communications
16 regarding it that you're aware of?

17 A. Other than the reminder emails that
18 went out, I'm not aware of any
19 communications.

20 Q. How many emails were sent out under
21 the system while it was in place?

22 A. I don't know.

23 Q. Fewer than ten?

24 A. I don't know. I would assume more
25 than ten.

1 P. Chung

2 on the BS storage.

3 Q. Was it KCG's policy to protect
4 files intended to be secret by either using
5 encryption or access permissions?

6 MR. DUGAN: Objection to form.

7 A. It is explicitly KCG's policy to
8 secure access to the predictors through
9 encryption and through permissions.

10 Q. As well as other files that were
11 intended to be secret?

12 MR. DUGAN: Objection to foundation
13 and form.

14 A. Such as?

15 Q. Unencrypted code.

16 A. Are you speaking of unencrypted
17 versions of the encrypted code?

18 Q. Yes.

19 A. And what are you asking
20 specifically about it?

21 Q. Was it KCG's policy to protect such
22 files by using either --

23 A. Yes.

24 Q. -- encryption or access
25 permissions?

1 P. Chung

2 interacting with secret code on how to -- how
3 to work with it productively.

4 Q. Does it warn at several places
5 regarding making Linux environment secure, or
6 does it I guess encourage quants in several
7 places in the document to make their Linux
8 environment secure?

9 MR. DUGAN: Objection to form.

10 A. Yeah. Like, for instance point
11 one, make sure that your Linux environment is
12 secure.

13 Q. And one way of doing that is to add
14 umask 0077; right?

15 A. Yes.

16 Q. Or alternatively, chmod, that
17 protocol would also help secure a file?

18 A. Correct.

19 Q. And these are instructions to
20 quants as to how to secure such files; right?

21 A. Yes.

22 Q. And it says by adding umask 0077 to
23 the end of your two different path names
24 there, this ensures that by default all new
25 directories and files created do not have any

1 P. Chung

2 group or other access permissions.

3 Does this indicate that if a quant
4 added these codes or instructions to the Bash
5 rc or dot profile areas, that others couldn't
6 access them?

7 A. What it ensures is if you set your
8 umask to 0077 in the Linux shell that you're
9 working in, or Bash shell that you're working
10 in, when you create a new directory or a new
11 file, the default permissions that are
12 created on it will be only for the user to
13 access.

14 Q. And these were instructions that
15 quants were expected to follow; right?

16 A. Yes.

17 Q. Would it be fair to say that in
18 requiring quants to use the umask 0077
19 function, KCG was trying to safeguard against
20 quants unwittingly giving access permissions
21 when none were intended?

22 A. That's true.

23 Q. What's the warning in the middle of
24 the page preceded by a pound sign?

25 A. It's a warning about not running

1 P. Chung

2 server while encrypting that file?

3 A. The question is a bit misworded.

4 Q. Well, I'm specifically referring to
5 using the command SVN-secret encrypt.

6 A. Okay. So yes, it uses that script,
7 uses the additional PGP recipients list
8 that's in that file.

9 Q. And it uses the public keys of the
10 users listed on the PGP --

11 A. Yes.

12 Q. -- line?

13 A. Yes.

14 Q. The PGP list is used by the file
15 for that purpose; correct?

16 A. Is used by the file?

17 Q. Well, sorry. That doesn't make a
18 lot of sense to you and probably no one else
19 of your caliber. But the PGP list is used
20 only for that purpose in the UNIX world?

21 MR. DUGAN: Objection to form.

22 A. Umm, I would also argue if someone
23 looked at it with their eyes, it would tell
24 them who had access to it.

25 Q. Does the secret server use the PGP

1 P. Chung

2 list in any way other than the one mentioned
3 other than to execute the SVN command?

4 A. For anything else? It's used just
5 in the context of encrypting the file before
6 checking it into source control, SVN.

7 Q. Would the owner of an unencrypted
8 file in the UNIX system be able to modify the
9 PGP list?

10 A. The owner of?

11 Q. An unencrypted file. So a file
12 that had been encrypted and is now
13 unencrypted.

14 A. Right.

15 Q. And you can access it. Can you
16 modify the PGP list?

17 A. If they have write access to it.

18 Q. So if there were no access
19 restrictions with regard to a particular user
20 who has access to an unencrypted file, that
21 user could modify the PGP list?

22 A. If they have write access to the
23 file, meaning w-r-i-t-e, then they could
24 modify the list.

25 Q. The PGP list itself is not

1 P. Chung

2 (The following record was read:)

3 "QUESTION: Is there any specific
4 instruction, written instruction that
5 you're aware of that KCG has ever
6 published other than the one we just
7 looked at from May 2017 that
8 specifically directs quants not to look
9 into other quants' directories?"

10 A. You could argue our policy on
11 accessing information that you're only
12 supposed to access covers that.

13 Q. Anything else besides that?

14 A. No.

15 Q. Prior to April 2017, were there any
16 written guidelines in existence at KCG
17 telling employees what to do after resigning
18 to transition their workspace to another
19 quant or other quants?

20 MR. DUGAN: Objection to form.

21 A. There are written policies in the
22 documents we've looked at previously. The
23 process that I've seen is that HR speaks to
24 the manager, and they discuss what makes
25 sense.

1 P. Chung

2 Q. Any others?

3 A. To the best of my knowledge, no,
4 I'm not aware.

5 Q. Were Bash history files stored on
6 personal directories at KCG?

7 MR. DUGAN: Again, objection. It's
8 outside the scope of the 30(b)(6). And
9 to the extent the witness can answer it,
10 he'll answer it based upon his personal
11 knowledge, not as a 30(b)(6).

12 A. Yeah, by default, the Bash
13 histories exist in their home directory, in
14 your home directory.

15 Q. Would it be a violation of KCG's
16 document retention policy to delete Bash
17 history files?

18 A. I'm not a hundred percent sure.

19 Q. In your experience of working with
20 quants, don't they create and delete files on
21 a regular basis just to do their work?

22 A. Sure. In the course of their daily
23 work, sure.

24 Q. Is it your position that every time
25 they delete a file, it's a violation of KCG's

1 P. Chung

2 document retention policy?

3 MR. DUGAN: Objection to form and
4 foundation.

5 A. It is not.

6 Q. Why not?

7 A. If you create a dummy file and then
8 you delete it, that's not a -- you're not
9 required to retain that document, that file.
10 If you build code, you're not required to
11 keep the object and the executables around,
12 the intermediate files. There are lots of
13 temporary files that get created when you do
14 things. You're not required to retain those
15 documents.

16 Q. Where are these exceptions to the
17 document retention policy found?

18 MR. DUGAN: Objection to form.

19 Q. Are they in writing, or are you
20 just from experience testifying as to how you
21 understand the policy to be followed?

22 MR. DUGAN: Objection to form.

23 A. I would have to review explicitly
24 the policy. But how I am describing it right
25 now, that's certainly experience.

1 P. Chung

2 Q. Based on your experience?

3 A. Yeah. The examples I gave.

4 Q. Did KCG have any explicit policy at
5 any time that instructed quants not to wipe
6 their company laptop before turning it over
7 after they've resigned?

8 A. There's a policy either in the
9 portable work device policy -- I'm sorry if
10 I'm mangling the title, but there is a policy
11 out there that restricts employees from
12 altering the operating system on a KCG-issued
13 device.

14 Q. Is there any specific policy that
15 forbids quants from wiping data, not
16 interfering with the operating system, but
17 wiping the data off of a laptop before
18 turning it in?

19 A. Specific to that policy, and
20 specific to Mr. Khandekar's Mac laptop, he
21 wiped it clean and replaced the operating
22 system. With respect to just deleting
23 certain files, other than specific personal
24 files that are not of a work nature, I would
25 interpret our policies on folks exiting the

1 P. Chung

2 MR. LIPMAN: Let's mark the
3 transcript for a possible document
4 request there.

5 MR. DUGAN: You have it, Harry.

6 Q. There is an allegation in this case
7 that Mr. Khandekar reviewed or copied the
8 predictors at issue, the [REDACTED] predictors for
9 reasons unrelated to KCG's business purposes.
10 Are you aware of that allegation?

11 A. Yes, I am.

12 Q. How did KCG determine that
13 Mr. Khandekar looked at the predictors at
14 issue for reasons unrelated to KCG business?

15 A. We have a Bash history. We have
16 the snapshot of the files. And we also know
17 the timing of all of this and all of his
18 activity. And it was during his reaching out
19 to Two Sigma to look for employment.

20 Q. Did KCG conduct any kind of study
21 of the work that Mr. Khandekar had been doing
22 at KCG to reach that conclusion that he
23 looked at the predictors for reasons
24 unrelated to KCG's business purposes?

25 A. Study?

1 P. Chung

2 Q. Analysis?

3 A. If by analysis meaning he looked at
4 specific predictors that he didn't have
5 access to and then advertised in his resume
6 that he knew and had produced himself
7 predictors that used [REDACTED], if
8 you want to call that analysis, then sure.

9 Q. Anything else?

10 A. No.

11 Q. So you're not aware of any
12 analysis, investigation, or effort by KCG to
13 determine if any of the predictors that
14 Mr. Khandekar looked at actually related to
15 his ongoing work at KCG?

16 MR. DUGAN: Objection to form.

17 A. We know the list of predictors he
18 had explicit access to, because it's listed,
19 and I believe that's been put in evidence.
20 All the other files that he looked at he did
21 not have explicit permission to access. So
22 it's pretty simple analysis-wise.

23 Q. Can you answer my question, please?

24 Because that wasn't an answer to my question.

25 Do you want it read back?

1 P. Chung

2 MR. DUGAN: Don't worry about the
3 comments. Listen to the question and
4 provide your answer. His commentary is
5 irrelevant.

6 You can ask another question, or if
7 you want that one read back, he can
8 answer it again if you'd like.

9 MR. LIPMAN: Read it back, please.
10 And I would ask the witness to answer
11 the question.

12 MR. DUGAN: He did.

13 MR. LIPMAN: He did not.

14 MR. DUGAN: Well, again, we
15 disagree.

16 MR. LIPMAN: You know he didn't.

17 (The following record was read:)

18 "QUESTION: So you're not aware of
19 any analysis, investigation, or effort
20 by KCG to determine if any of the
21 predictors that Mr. Khandekar looked at
22 actually related to his ongoing work at
23 KCG?"

24 A. I just described the analysis in my
25 previous answer.

1 P. Chung

2 Q. The analysis having to do with the
3 predictors that he looked at --

4 A. Yeah, whether he had access --

5 Q. -- that he put on the resume?

6 A. -- to them or not.

7 MR. DUGAN: Sorry. Nothing for me.
8 Go ahead if there's a question. I'm not
9 sure if there's a question.

10 A. The analysis of looking at what
11 Mr. Khandekar had access to in terms of the
12 PGP recipient list, and then the files that
13 he accessed, improperly accessed where he
14 didn't have explicit access to on the
15 recipient list.

16 Q. Okay. So would it be fair to
17 conclude that KCG has determined that
18 Mr. Khandekar looked at the predictors for no
19 legitimate business purpose because he
20 shouldn't have looked at the predictors? Is
21 that another way of putting it?

22 MR. DUGAN: Objection to form.
23 Argumentative.

24 A. He was -- he did not have
25 permission to look at those files.

1 P. Chung

2 Q. Can you answer my question as to
3 whether or not I understand what you're
4 saying. Do you want to have it read back?

5 MR. DUGAN: Objection.

6 Argumentative.

7 A. Sure.

8 MR. LIPMAN: Okay. Let's read it
9 back.

10 (The following record was read:)

11 "QUESTION: So would it be fair to
12 conclude that KCG has determined that
13 Mr. Khandekar looked at the predictors
14 for no legitimate business purpose
15 because he shouldn't have looked at the
16 predictors? Is that another way of
17 putting it?"

18 A. Yes, he had no legitimate reason,
19 no legitimate business reason to be looking
20 at those predictors where he did not have
21 access to, explicit access to.

22 Q. Would it follow from that statement
23 that KCG would consider Mr. Khandekar's
24 accessing the predictors to be wrongful even
25 if he looked at them to further his work at

1 P. Chung

2 KCG?

3 A. Yes, because he didn't have
4 explicit authority, authorization to look at
5 those files. There are ways to get that
6 access. There are proper channels. You go
7 to your manager. You discuss it, you
8 discuss, you know, and you get permission.

9 MR. LIPMAN: All right. If we take
10 a quick break, I will either come back
11 with just a few questions or conclude
12 the deposition, of course leaving it
13 open because there are a lot of
14 documents that are yet to be produced it
15 seems.

16 MR. DUGAN: Things aren't as they
17 seem, Harry, but I'm sure Zach will pump
18 out a letter tonight.

19 MR. LIPMAN: I doubt it.

20 (Recess taken from 5:24 p.m. to
21 5:35 p.m.)

22 Q. Mr. Chung, you testified that KCG
23 took a snapshot, I think that was your word,
24 of Mr. Khandekar's directory on or about
25 February 19th, 2017; is that right?

1 P. Chung

2 A. Approximately, sure.

3 Q. Did KCG determine when, if at all,
4 Mr. Khandekar actually opened any of the [REDACTED]
5 predictors on the list we were looking at
6 before?

7 A. According to the Bash history, he
8 did.

9 Q. When? On what dates?

10 A. Between the end of December through
11 February. We can go to the specific Bash
12 history document if you want to be specific.

13 Q. Was KCG able to determine whether
14 or not Mr. Khandekar opened any predictor
15 files prior to December 2017?

16 MR. DUGAN: 2016 you mean?

17 Q. I'm sorry. 2016. Right.

18 A. We don't have any evidence of that.

19 Q. And why is that? Is that because
20 the Bash history doesn't exist, or you
21 determined that there was no attempt to open
22 documents prior to December 2016?

23 A. We didn't see any evidence of it.
24 A lot of stuff, certainly snapshots roll off.
25 And so older files will -- we will lose older

1 P. Chung

2 A. No.

3 Q. Why not?

4 A. Again, with his experience and his
5 skill set, or skill level, merely looking at
6 the code would give him enough ideas to be
7 able to -- certainly compared to other folks,
8 other quants, to be able to reproduce those
9 predictors at a competitor.

10 MR. DUGAN: Nothing further.

11 BY MR. LIPMAN:

12 Q. Let me just ask you this. If
13 Mr. Khandekar abided by his noncompete
14 agreement and abided by his agreement not to
15 share or disclose confidential information
16 with any third-parties, how could KCG or now
17 Virtu be harmed by Mr. Khandekar going to a
18 competitor?

19 A. So given his resume and his
20 misrepresentation of knowing [REDACTED]
21 [REDACTED] predictors, it's evident to us that
22 his intent was to use that information at our
23 competitor, information that he was not privy
24 to when he was at KCG.

25 Q. That doesn't answer my question,

1 P. Chung

2 which is, if Mr. Khandekar was to -- well,
3 let me rephrase that.

4 My question is if Mr. Khandekar,
5 comma, having followed his noncompete now for
6 six months, stayed out of the competitive
7 workspace, and if he were to abide by his
8 confidentiality obligations, how could KCG be
9 harmed? Do you understand the question?

10 A. Yes. If he abided by the
11 noncompete and abided by all the
12 confidentiality agreements at KCG, there
13 would be -- it would be considered that he
14 wasn't in violation of those things. Was
15 not.

16 Q. Right. But my question is how
17 could KCG be harmed?

18 A. Certainly losing a highly skilled
19 quant to a competitor is -- can be a
20 competitive disadvantage and could cause harm
21 in terms of profitability, you know, in terms
22 of competition.

23 Q. Anything else?

24 A. No.

25 MR. LIPMAN: No more questions.

**UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK**

KCG HOLDINGS, INC. and KCG AMERICAS
LLC,

Plaintiffs,

-against-

ROHIT KHANDEKAR

Defendant.


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)
) Civil Action No. 17 CV 3533
) (AJN) (GWG)
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ACKNOWLEDGEMENT OF DEPONENT

I, Philip Chung, do hereby certify that I have read the foregoing pages of the deposition of KCG Holdings, Inc. and KCG Americas LLC by Philip Chung taken on Wednesday, October 4, 2017 and the same is a correct transcription of the answers given by me to the questions therein propounded, except for the corrections or changes in form or substance, noted in the attached errata sheet.

I declare under penalty of perjury that the foregoing is true and correct.

Dated: October 30, 2017


Philip Chung

Page	Line	Now Reads	Should Read	Reason For Correction
43	11	For the record, loop is the	For the record, the Loop is the	capitalization
43	12	confluence	Confluence	capitalization
43	13	confluence incidents.	Confluence instances.	capitalization and word correction
48	7	I'm not aware of anybody sending	I'm not aware of anybody else sending	clearly I'm aware of Mr. Khandekar
61	3	could you explain.	could you explain?	punctuation
61	4	or at least repeat.	or at least repeat?	punctuation
85	11			file path correction
85	12	in a group force method	in a brute force method	word correction
85	17	etg/develop/bs	/etg/develop/bs	absolute path begins with '/'
86	22	home/users/rkhandek/store/docs/bs	/home/users/rkhandek/store/docs/bs	absolute path begins with '/'
90	6	was called short list	was called shortlist	file name has no space
92	7	etg/users/east/jchome	/etg/users/east/jc home	absolute path begins with '/' ; jchome s.b. jc home
92	12	in jchome are	in jc home are	jchome s.b. jc home
93	23	in the jchome directory	in the jc home directory	jchome s.b. jc home
94	5	underneath jchome	underneath jc home	jchome s.b. jc home
94	10	how's that.	how's that?	punctuation
157	3	by head of operations	my head of operations	word correction
203	14	chmodog-rwx	chmod og-rwx	correct Linux command syntax (add space)
203	19	gpg-output	gpg --output	correct Linux command syntax (add space)
204	6	gpg-output	gpg --output	correct Linux command syntax (add space, add dash)
205	2	gpg--output	gpg --output	correct Linux command syntax (add space)
217	22	the chamod command	the chmod command	correct Linux command spelling
217	24	chamod restriction	chmod restriction	correct Linux command spelling